

REMARKS

INTRODUCTION

In accordance with the foregoing, the specification and claims 7, 8, 12, 17, 18, 19, 28, 31, 32, and 34 have been amended. Claims 2-5, 7-10, 12-15, 17-26 and 28-34 are pending and under consideration.

CLAIM OBJECTIONS

Claims 7, 8, 12, 17, 18, 31, 32, and 34 are objected to for various informalities and recommended corrections. The Applicant respectfully submits that the claim amendments suggested by the Examiner overcome the Examiner's objections.

REJECTION UNDER 35 U.S.C. §112

Claim 19 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 19 has been amended to recite, "guiding rings assembled at end portions of the screws, wherein the guiding rings contact the inclined surfaces."

REJECTION UNDER 35 U.S.C. §102(e)

On pages 4-5, claim 34 is rejected under 35 U.S.C. 102(e) as being anticipated by Hattori (Pub. No. U.S. 2004/0100547).

Amended claim 34 recites "...an adjusting portion on a second side of the laser scan unit opposite to the first side to adjust an amount by which the laser scan unit pivots."

The Examiner asserts that Hattori describes, "an adjusting portion on a second side of the laser scan unit opposite to the first side to adjust an amount by which the laser scan unit pivots (the second positioning member 47 disposed on the back side of the scanning unit 13 adjusts an amount by which the laser unit pivots around the first positioning member 46)."

In contrast in Fig. 3, Hattori describes "the second positioning member 47 is a rounded screw and serves primarily to adjust **the exposure position on the photosensitive drum 35** that is exposed by the laser beam from the scanning unit 13" (*emphasis added*, paragraph 96). Hattori discusses that the exposure position on the photosensitive drum 35 can be adjusted by the second positioning member 47 (paragraph 110).

Although the claims are not restricted to what is disclosed in the specifications and drawings, for antecedent basis purposes, the Examiner is referred to the hinge portion 80 that pivots the laser scan unit 10 on the printer body 40 (paragraphs 27 and 28). In Figs. 8 and 9, the

hinge portion 80 is formed as a groove 81. Additionally in Fig. 8, a hinge supporting portion 85 is formed on the printer body 40 to which the laser scan unit assembly is disposed to correspond with the hinge portion 80 (paragraph 28). The adjusting portion 30 adjusts the amount the laser scan unit 10 pivots around the hinge portion 80 (paragraph 29). When the screw 32 of the adjusting portion 30 is turned to be moved forward, the laser scan unit 10 pivots upward, but on the contrary, if the screw 32 is turned to be moved backward, the laser scan unit 10 pivots downward, and accordingly, the laser beams can be adjusted to be parallel with each other (paragraph 30). Therefore, the adjusting portion on a second side of the laser scan unit opposite to the first side adjusts an amount by which the laser scan pivots.

Hattori describes the alleged adjusting portion 47 adjusting the exposure position on the photosensitive drum 35, not the laser scan unit. Further, Hattori states “the levelness of the scanning unit 13 in relation to the transfer belt 40 is **primarily adjusted and determined by the first positioning member 46**” (*emphasis added*, Para. 95, pg. 7, lines 3-5). As a result, the alleged adjusting portion 47 adjusts the photosensitive drum 35 only and the alleged hinge supporting portion 46 adjusts the scanning unit 13.

In contrast, the adjusting portion of the present invention adjusts an amount by which the laser scan unit pivots. Additionally, the hinge portion pivotably disposes the laser scan unit.

Hattori does not disclose “...an adjusting portion on a second side of the laser scan unit opposite to the first side to adjust an amount by which the laser scan unit pivots.”

Further, in the Office Action issued on November 22, 2005, the Examiner indicated allowability of claim 34, *inter alia*, on page 5, item 6.

REJECTION UNDER 35 U.S.C. §103

On pages 5-6, claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okugawa et al. (U.S. 6,600,504) in view of Yamakawa (JP 6-127020).

In the Office Action issued on July 14, 2005, the Examiner objected of claims 8 and 18, *inter alia*, on page 5, item 7, and indicated allowability of claims 8 and 18 if rewritten into independent form. The Examiner stated on page 6, lines 8-11:

The primary reason for the indication of the allowability of claims 8, 18 is the inclusion therein, in combination as currently claimed, of the limitations wherein “the first adjusting unit is a screw and the second adjusting unit is an inclined surface,” which are not found [or] taught by the prior art of record considered alone or in combination.

Additionally, in the Office Action issued on November 22, 2005, the Examiner again indicated allowability of claims 8 and 18, *inter alia*, on page 6, item 7.

Claims 8 and 18 are currently amended to clarify the invention. No new matter is presented.

Amended claim 8 recites "...a first adjusting unit provided on the second side of the laser scan unit, and a second adjusting unit provided on the printer body, wherein the first adjusting unit is a screw and the second adjusting unit is an inclined surface."

Amended claim 18 recites "...a printer body to support the hinge portions, wherein each adjusting portion comprises: a first adjusting unit provided on the second side of the laser scan unit, and a second adjusting unit provided on the printer body, wherein each first adjusting unit is a screw and each second adjusting unit is an inclined surface."

On page 7 of the Office Action, the Examiner admits that Okugawa et al. fails to teach the adjusting portion including a first adjusting unit as a screw provided on the laser scan unit and a second adjusting unit as an inclined surface (*emphasis added*).

Okugawa is silent on "an inclined surface." In Okugawa, only the movement of the driving screw 609 causes the frame body 604 to rotate around the shaft 603 (Fig. 13). In the present invention, the second adjusting unit is provided on the printer body and is not part of the printer body. The adjustment mechanism of Okugawa only includes a driving screw 609.

Therefore, Okugawa does not teach or suggest where the second adjusting unit is an inclined surface.

On page 7 of the Office Action, the Examiner asserts that Yamakawa makes up for the deficiencies of Okugawa. Although Yamakawa discusses a laser writing device, this device does not relate to "second adjusting unit is an inclined surface" as recited in independent claims 8 and 18.

Yamakawa describes a laser scan unit having a screw 9 connected to one end of the scan unit 20. Yamakawa describes moving the reflection mirror 5, which is supported by a housing 20 with a pulse motor 10 (Para. 20). The teachings of Yamakawa would not apply to Okugawa because Yamakawa is related to adjusting the reflection mirror 5 with a motor 10. Yamakawa teaches away from using "an inclined surface." Yamakawa states that "moving a f-theta lens to shaft orientations manually" is a *conventional* approach (*emphasis added*, Para. 3). In the section titled Problems to be Solved by the Invention, Yamakawa discusses the

problems of environmental variation when moving and adjusting a f-theta lens manually (Para. 4).

Yamakawa states "the mirror [Miller] is automatically moved to a photoconductor so that the scan speed of a laser beam might become fixed, even if the property of a f-theta lens changes with environmental variations, an image high-definition with an easy configuration can be obtained (Para. 13). Yamakawa discusses using a motor 10 to move the mirror 5 (Para. 20).

Our invention includes a second adjusting unit that is an inclined surface. The "inclined surface" of the present invention is used to adjust the laser scan unit manually. The motor described in Yamakawa is not an inclined surface. Thus, Yamakawa teaches a non-analogous art of using a motor to move the housing of a laser writing device. Therefore, Yamakawa cannot be relied upon to cure the deficiencies of Okugawa.

Neither Okugawa nor Yamakawa, individually or combined, recite "second adjusting unit is an inclined surface."

It is submitted that the Examiner's original judgment was correct in the Office Actions issued on July 14, 2005 and November 22, 2005 indicating allowable subject matter for claims 8 and 18. The Examiner provided a statement for reasons of allowance for claims 8 and 18 in the Office Action issued on July 14, 2005. In both Office Actions, the Examiner reviewed Okugawa and objected to claims 8 and 18 for containing allowable subject matter. Because the Examiner has had the opportunity to review Okugawa several times, the Examiner requests withdrawal of the rejections pending against the twice-allowed claims 8 and 18.

On pages 7 and 8, claims 25-26, 29-30, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okugawa in view of Yamakawa.

In the Office Action issued on July 14, 2005, the Examiner indicated allowability of claim 29, *inter alia*. It is submitted that the Examiner reviewed Okugawa in the July 14, 2005 Office Action. In the Office Action issued on November 22, 2005, the Examiner indicated allowability of claims 25-26, 29-30, and 32-33, *inter alia*, on page 5, item 6. It is submitted that the Examiner also reviewed Okugawa in the first and second Office Actions. As stated above, because claims 25-26, 29-30, and 32-33 have been allowed twice, the Applicant requests withdrawal of the rejection pending against these claims.

On page 8, the Examiner admits that Okugawa et al. fails to [teach or suggest] the adjusting portion including an inclined surface in contact with the screw, the hinge, and the adjusting unit being located at [the] opposite side.

On page 8 of the Office Action, the Examiner asserts that Yamakawa makes up for the deficiencies of Okugawa.

As stated above, Yamakawa is directed to a non-analogous art of using a motor 10 to move a mirror 5. Yamakawa teaches away from manually moving the mirror (Para. 3, 4, and 6). The teachings of Yamakawa are directed to automatically moving the mirror 5 with a motor 10 for an easier configuration (Para. 13).

Independent claims 25 and 33 recite, "...the adjusting portion includes a screw and an inclined surface in contact with the screw, wherein a linear movement of the screw across the inclined surface pivots the scan unit."

Yamakawa describes using an automatic motor to move the housing 20 containing the mirror 5.

Neither Okugawa nor Yamakawa, individually or combined, recite, "...the adjusting portion includes a screw and an inclined surface in contact with the screw, wherein a linear movement of the screw across the inclined surface pivots the scan unit."

On page 8, claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okugawa in view of Yamagawa, as applied to claims 25 and 29 above, and further in view of Hattori.

Nothing was cited or has been found in Hattori suggesting modifications of Okugawa or Yamagawa to overcome the deficiencies discussed above.

In view of the above, it is respectfully submitted that the rejection is overcome.

Withdrawal of the foregoing rejections is respectfully requested.

ALLOWABLE SUBJECT MATTER

Claims 2-5, 7, 9-10, 12-15, 17, and 20-24 are allowed.

On page 9, claim 19 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112, 2nd paragraph, and to include all of the limitations of the base claim and any intervening claims. The Applicant respectfully submits that the claim amendments overcome the Examiner's objections.

Claim 28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 28 has been rewritten to incorporate claim 25. Thus, claim 28 is allowable.

Thus, claims 2-5, 7, 9-10, 12-15, 17, 19-24, and 28 are in condition for allowance.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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